APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/602,388	06/24/2003	Feng-Ting Pai	404700	1697

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EXAMINER
WU, XIAO MIN

ART UNIT	PAPER NUMBER
2629	

DATE MAILED: 03/21/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☐ Responsive to communication(s) filed on _____.

2a) ☐ This action is **FINAL**.   2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *1-9* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) *1-9* is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☐ All b) ☐ Some * c) ☐ None of:

    1. ☐ Certified copies of the priority documents have been received.

    2. ☐ Certified copies of the priority documents have been received in Application No. _____.

    3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

1.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2.   Claims 1-4 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As to claim 1, the recitation of "invention" , in line 8, in indefinite. Does applicant mean "inversion"?

Claim Rejections - 35 USC § 102

3.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4.   Claims 1-9 are rejected under 35 U.S.C. 102(b) as being anticipate by Matsushima et al. (US Patent No. 6,396,468).

As to claim 1, Matsushima discloses a method for driving an LCD in a dynamic inversion manner, comprising the steps of: dividing a frame into a plurality of polarity blocks (e.g. four scanning lines G1 to G4 as represented one block as shown in Figs. 10a-10d), each of the polarity blocks covering 2n horizontal scanning lines (e.g. 2*2 scanning lines G1 to G4), wherein n is a positive integer (e.g. n=2); generating an original polarity pattern (Fig. 2a) which has positive polarities for n pixels in each column line of each polarity block and negative polarities

for the other n pixels in each column line of each polarity block (Figs. 10a-10d only show part of the display scanning lines, the total scanning lines should have equal positive and negative polarity); generating a polarity inversion group having 2n polarity patterns which record polarity distributions obtained by rotating each row of the original polarity block under a DC balance requirement (e.g. in a second frame G2 and G4 is rotated under a DC polarity, in a third frame, G1 and G3 are rotated under a DC polarity, so that each row of the original block are rotated); and selecting the polarity patterns in the polarity inversion group for driving the pixels (see Figs. 10a-10d).

As to claims 2, 7, Matsushima discloses each polarity pattern in the polarity inversion group is obtained by sequentially rotating up the original polarity block by one row (e.g. the polarity inversion from G2-G4-G1-G3 as shown in Fig. 10a-10b).

As to claims 3, 8, Matsushima discloses each polarity pattern in the polarity inversion group is obtained by sequentially rotating down the original polarity block by one row (e.g. the polarity inversion from G1-G34-G2-G4 as shown from 10b to 10c)

As to claims 4, 9, Matsushima discloses the polarity patterns in the polarity inversion group for driving the pixels are selected randomly (Fig. 10b is different from 10d).

As to claim 5, Nishimura discloses each of the polarity patterns appears once in one cycle (see Figs. 10a to 10d).

As to claim 6, Matsushima discloses a method for driving an LCD in a dynamic inversion manner, comprising the steps of: dividing a frame into a plurality of polarity blocks (e.g. four scanning lines G1 to G4 as represented one block as shown in Figs. 10a-10d), each of the polarity blocks covering 2n horizontal scanning lines (e.g. 2*2 scanning lines G1 to G4), wherein

n is a positive integer (e.g. n=2); generating an original polarity pattern which has positive

polarities for n pixels in each column line of each polarity block and negative polarities for the

other n pixels in each column line of each polarity block (e.g. Figs. 10a-10d only show part of

the display scanning lines, the total scanning lines should have equal positive and negative

polarity); generating a polarity pattern which records a polarity distribution obtained by rotating

x rows of the original polarity block under a DC balance requirement, wherein x is a positive

integer and not larger than 2n (e.g. in a second frame G2 and G4 is rotated under a DC polarity,

in a third frame, G1 and G3 are rotated under a DC polarity, so that each row of the original

block are rotated); and selecting the polarity pattern for driving the pixels (see Figs. 10a to 10d)

Response to Arguments

5.   Applicant's arguments with respect to claims 1-9 have been considered but are moot in

view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to XIAO M. WU whose telephone number is 571-272-7761. The

examiner can normally be reached on 6:30 am to 4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, RICHARD HJERPE, can be reached on 571-272-7691. The fax phone number for

the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

x.w.
March 20, 2006

XIAO M. WU
Primary Examiner
Art Unit 2629